	Application No.	Applicant(s)
Notice of Allowability	09/887,404	CHARTIER ET AL.
	Examiner	**Art Unit**	
	Javid A. Amini	2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *11/07/2005*.

2. ☒ The allowed claim(s) is/are *1-19*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some*   c)☐ None   of the:

         1. ☐ Certified copies of the priority documents have been received.

         2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

         3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

     * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

     (a)☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

         1)☐ hereto or 2)☐ to Paper No./Mail Date _____ .

     (b)☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

An examiner's amendment

An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

James V. Mahon on 11/21/2005.

The application has been amended as follows:

Claim 1.

A computer system operation method for use in a system comprised of a plurality of

workstations arranged in a peer-to-peer architecture, said method providing a means for allowing

multiple users simultaneously to modify a model of an object at separate workstations, such that

any modification made at any workstation is duplicated at each other workstation in the system,

the method comprising:

receiving at a first workstation input from a user specifying a modification of first data

comprising a representation of a model of an object, said input comprising one or more

constraints relating to cell information;

upon receipt of the input specifying the modification and under control of the first

workstation, translating said input into [a command] a model modification command specifying

the portion of the first data to be modified, and the modification to be made;

modifying said first data by said first workstation in accordance with said [command]

model modification command to effect a change in the model as represented by said first data;

substantially concurrent with said modifying of said first data, automatically transmitting said [command] model modification command via a network to other workstations in the system;

automatically processing said [command] model modification command at a second workstation upon receipt of said [command] model modification command; and

modifying second data comprising a representation of the model of the object, the second data being automatically modified by the second workstation in accordance with said [command] model modification command to effect the change in the model represented by said second data, said change in the model represented by said second data being made substantially simultaneous with the change in the model represented by said first data;

and wherein said method further comprises:

a) selecting the first constraint of said input and identifying the components of the CAD system that must be accessed to find geometric cells meeting the requirements of the constraint;

b) searching the cells of the model and retaining as a subset only the cells that meet the requirement of the first constraint of said input;

c) selecting the next constraint of said input and identifying the components of the CAD system that must be accessed to find geometric cells meeting the requirements of said next constraint;

d) searching the subset of cells and retaining in the subset only the cells that meet the requirement of said next constraint of said input; and

e) repeating steps c) and d) for each of the remaining constraints in said input.

Claim 8,

A CAD/CAM device comprising:

an input device;

a central processing unit; and

a display device;

wherein the central processing unit runs an application program comprising code for:

    displaying a representation of a model, said representation being generated based on first data associated with said workstation;

    receiving input comprising one or more constraints relating to cell information of the model from a user specifying a modification of the model;

    upon receipt of the input specifying the modification, translating said input into [a command] a model modification command specifying the portion of the first data to be modified, and the modification to be made to the first data;

    modifying the first data in accordance with said [command] model modification command to effect a change to the model;

    substantially concurrent with said modifying of said first data, automatically transmitting said [command] model modification command via a network to other CAD/CAM devices connected to said network to effect changes to duplicate copies of said first data stored at the other CAD/CAM devices;

    for each constraint, determining which cells of the model meet the requirement of the constraint; and

    generating a list of cells meeting all of the requirements of the constraints.

Claim 14,

A CAD system comprised of a plurality of workstations linked together via a

communications network, each workstation equipped with program code comprising a

distributor component, and a feature modeler, and further comprising program code for causing

said workstation to perform a method comprised of:

storing first data representing a model;

receiving input comprising one or more constraints relative to cell information of the

model from a user specifying a modification of said model;

translating said input into [a command] a model modification command specifying the

portion of the first data to be modified, and the modification to be made;

modifying said first data in accordance with said [command] model modification

command; and

substantially concurrent with said modifying of said first data, transmitting said

[command] model modification command via said network to other workstations in the system

to instruct said other workstations to modify duplicate copies of said first data so as to maintain a

consistent representation of the model by the first data and by the duplicate copies of said first

data; and

wherein said code further comprises code for;

for each constraint. determining which cells of the model meet the requirement of the

constraint; and

generating a list of cells meeting all of the requirements of the constraints.

Claim 19,

Computer executable code stored on a computer readable medium, the code comprising means for causing a CAD system to perform a method for:

displaying a representation of a model, said representation being generated from first data comprising a stored representation of the model;

receiving input comprising one or more constraints relating to cell information from a user specifying a modification of the model;

translating said input into [a command] a model modification command specifying the portion of the model to be modified, and the modification to be made;

modifying said first data in accordance with said [command] model modification command to effect said model modification; and

transmitting said [command] model modification command via a network to other CAD/CAM devices for receipt by a peer CAD system program executing at said other CAD/CAM device to instruct the peer CAD system program to alter a copy of said first data comprising a duplicated stored representation of the model such that real-time synchronization of the model as represented by the first data and as represented by the copy of said first data is maintained;

and the code further comprising means for causing a CAD system to perform a method for:

for each constraint determining which cells of the model meet the requirement of the constraint; and

generating a list of cells meeting all of the requirements of the constraints.

Claim 20,

Computer executable code stored on a computer readable medium according to Claim 19,

the code further comprising means for causing a CAD system to perform a method for:

receiving from the network [a command] a model modification command specifying a

portion of the model to be modified, and the modification to be made; and

modifying said first data in accordance with said received [command] model

modification command to effect a modification to be made.

Allowable Subject Matter

Claims 1-19 are allowed according to new claim's numbering.

An examiner's statement of reasons for allowance:

The following is an examiner's statement of reasons for allowance:

The present claim invention claims a corporative working whereby users can work

concurrently on a model and, when a change to the model is made by a user at a first work

station, that change is propagated to other work stations at substantially the same time as the

change was made at the first work station. Implementations of the claim invention can allow an

ability to simultaneously modify a model as claimed in the present application does not exist in

the cited prior art's disclosure.

Claim numbering

Old claim number	New Claim number	Claim type
1	1	**Independent**
2	2	Dependent
3	5	Dependent
4	3	Dependent

5	4	Dependent
6	Canceled	
7	6	Dependent
8	**8**	**Independent**
9	9	Dependent
10	11	Dependent
11	10	Dependent
12	Canceled	
13	12	Dependent
14	**13**	**Independent**
15	14	Dependent
16	15	Dependent
17	Canceled	
18	16	Dependent
19	**17**	**Independent**
20	18	Dependent
21	Canceled	
22	19	Dependent
23	Canceled	
24	Canceled	
25	Canceled	

26	7	Dependent

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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